

**SANJAY** Hi. My name is Sanjay Bagaria, and I'm a surgical oncologist at Mayo Clinic in Jacksonville, Florida. I'm here to talk  
**BAGARIA:** about HIPEC surgery. Peritoneal carcinomatosis is a dreaded sequela of many gastrointestinal cancers, and it is uniformly fatal.

The peritoneum is a lining of the abdomen that can often be involved with cancer. Aggressive chemotherapy has not produced long-term survivors, and aggressive surgery alone has also been equally disappointing. Hence, there is a critical need for more effective therapy. Cytoreductive

HIPEC surgery is a complex surgical oncologic procedure that combines aggressive surgery with intraperitoneal chemotherapy that is used to treat advanced cancers that involve the peritoneum. It is a procedure that is typically offered to patients with metastatic colorectal cancers, cancers of the appendix, and ovarian cancer. The goal of HIPEC surgery is to cure the patient. This is unlike chemotherapy, whose goal is for palliation.

HIPEC surgery involves removal of all visible cancer in the abdomen and then treatment of residual, microscopic disease with heated chemotherapy. After we remove the cancer, we infuse and circulate heat and chemotherapy for 90 minutes. This is done in the operating room under a single operation. It is thought that direct administration of chemotherapy kills cancer cells that are likely present but not visible to the naked eye.

Heating the chemotherapy is thought to potentiate the effect of the drug. The advantage of bathing the abdomen with heated chemotherapy during surgery is that we are able to deliver a high dose of topical chemotherapy without the side effects and toxicity seen with IV or oral chemotherapy. The reason is the high dose is only for 90 minutes during surgery, which is not enough time to get absorbed into the patient's systemic circulation.

Patients eligible for this surgery are those who have cancers of the colon, rectum, appendix, stomach, and ovary. Their disease must be limited to the abdomen. In other words, patients whose cancer has spread to other parts of the body, such as the lungs, are not eligible for HIPEC surgery. Also, since these surgeries can be quite long-- they can last up to 15 hours-- patients must be motivated and have a good performance status.

I am sometimes asked if we can do this surgery using laparoscopy. We just started a laparoscopic HIPEC surgery program here at Mayo Clinic Florida. It is for select patients that have limited disease. The advantage of laparoscopic HIPEC surgery is that the post-operative care can be easier.

Here at Mayo Clinic, we use a multi-disciplinary approach that involves our surgical team, medical oncologists, radiologists, and pathologists to determine if this procedure is in the patient's best interest. The intraoperative and post-operative care is carefully coordinated with our anesthesiologist and intensive care specialists. It truly requires a team approach and tertiary care resources to care for patients who undergo such a complicated procedure.

HIPEC surgery is not for everyone, but for carefully selected patients, it provides a chance for a cure. If you believe you may be a candidate for HIPEC surgery or have questions, please contact my office at 904-953-2523. Thank you.